

# **METHOD FOR INTEGRATING MULTIPLE WEB SERVERS BASED ON INDIVIDUAL CLIENT AUTHORIZATION**

## **BACKGROUND OF THE INVENTION**

### **1) FIELD OF THE INVENTION**

The invention herein relates to network access management, specifically a method for integrating multiple web servers based on individual client authorization.

### **2) DESCRIPTION OF THE PRIOR ART**

Due to innovations in the network technology and significant reduction in network hardware and software set up costs in recent years, many companies have lowered the related expenses to unprecedented levels. Business networks have been established between internal company departments and related corporate groups or their upstream and downstream manufacturers and, furthermore, the utilized database systems collect and arrange information through the networks for statistical and analytical purposes such that the latest data is available at all times. This is especially true of multinational companies in the process of integrating product design, development, manufacturing, and marketing to meet the varying requirement of markets in different regions, thereby enabling the faster design and output of products for those markets as well as more rapid worldwide marketing. In addition to the extensive use of regional network systems and the continuous enhancing of internal company department data communications efficiency, Internet utilization has increased between related on-line corporate groups as well as upstream and downstream manufacturers to rapidly and, furthermore, accurately obtain market

information that enables them to precisely understand market demand and thereby swiftly achieve comprehensive product distribution, a considerable decrease warehousing costs, and lower data forwarding times. As such, companies are not only capable of manufacturing products that meet consumer requirements and, furthermore, are competitively priced, but also have the capacity to source the latest data at an accelerated rate.

The network systems presently set up in various corporate groups are generally comprised of a web server and a plurality of clients, with the said server having an immense database system. The said database system consist of a quantity of databases utilized for the storage of various normal business operation records and the said records are categorized by subject under a range of different fields. For example, the product order database of a manufacturer typically includes order numbers, type, component names, unit price, and other fields, the said fields constituting internal database records. The said plurality of clients are respectively linked to the said server and, furthermore, respectively utilize a database program user interface screen that enables access to the database system of the said server through the said clients and the inputting of data into the database records or searching for data stored in the said database records.

In such network systems, the said web server executes an authentication routine based on commands inputted by the clients and then grants a said client a certain user authorization level according to the post-authentication results, enabling the said client to browse, edit, and save web pages in the said server that are permitted by the said authorization level; when the said client thereafter wants to browse web pages in another

web server, the said client must exit the accessed said web server and log onto another web server, which involves repeating the said authentication procedure before access is granted to browse, edit, and save web pages in the said other web server. Client users conducting searches of various internal company department, related corporate groups, and upstream/downstream manufacturer web pages in web servers must repeat the authentication routine at each said web server, which results in numerous user inconveniences and difficulties.

In view of the authentication routine required of users at conventional clients when access is desired to web pages in conventional network system web servers and the repetition of the authentication routine to log onto each said web server as well as the resulting user inconveniences and difficulties, the inventor of the invention herein conducted long-term research and testing to improve the conventional shortcomings which culminated in the successful development and design of the method for integrating multiple web servers based on individual client authorization of the invention herein.

## SUMMARY OF THE INVENTION

An objective of the invention herein is to provide a method for integrating multiple web servers based on individual client authorization, wherein the said method consists of setting up a client, a master web server, and at least one slave web server through a network such that after the said master web server receives commands inputted by the said client, an authentication routine relative to the said client is executed based on the said commands to determine the individual authorization level of the said client and web pages

are collected from the said master server and slave web that the client is permitted to browse based on the said individual authorization level and, furthermore, web pages are respectively displayed via a specific screen model on the computer system of the said client.

5 Another objective of the invention herein is to provide a method for integrating multiple web servers based on individual client authorization, wherein during searches, it is only necessary to directly select from the said specific screen model at the client end to access the corresponding web server and display the relevant web pages, thereby effectively enabling the user to search for various web pages in the said master web servers  
10 without the repeating authentication routine to log onto each said web server and thus avoiding the resulting inconveniences and difficulties.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 is the identification comparison table of the invention herein.

15 Figure 2 is the group comparison table of the invention herein.

Figure 3 is the group authorization comparison table of the invention herein.

Figure 4 is the individual authorization comparison table of the invention herein.

Figure 5 is a flow chart of the master web server routine based on the identification code and recognition code inputted by the client.

20 Figure 6 is the specific screen model of the invention herein.

## **DETAILED DESCRIPTION OF THE INVENTION**

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In the method for integrating multiple web servers based on individual client authorization of the invention herein, the said method consists of setting up a master web server of a manufacturer, at least one slave web server, and at least one client through a network; the said slave web server belongs to a cooperating company (such as a product  
5 buyer or a components supplier, etc.) that supports the said manufacturer and, furthermore, goods transaction information derived from financial management, production management, and materials management data (such as orders, price quotes, and components inventory, etc.) are automatically updated between the said master web server and the said slave web server through the network, the internal departments of the  
10 said client, the said manufacturer, and the said cooperating company logging onto the network with various computer systems; since the automatic updating of data is widely utilized on networks and is not central to the patent application of the invention herein, it shall not be further elaborated.

When any client logs onto the said master web server, the said master web server  
15 executes an authentication routine relative to the said client based on commands inputted by the said client, determines the individual authorization level possessed by the said client utilizing the post-authentication results, and collects and compiles web pages from the said master web server and the said slave server that the client is permitted to browse; the said web page is of a specific screen model that is displayed on the computer system of the said  
20 client.

When the user wants to conduct a search through the web pages of the said web servers, it is only necessary to directly select from the said specific screen model at the

client end to access the corresponding web server and display the relevant web pages, the said web pages containing information relating to the goods transactions derived from the financial management, production management, and materials management data of the manufacturer and the said cooperating company; since data between the said master web server and the said slave web server is automatically updated through the network, clients can browse the latest data at any time to circumvent data forwarding errors and, furthermore, it is not necessary to execute repeated operations on the said master web server and the said slave web server.

In the invention herein, referring to FIG. 6, the file management of the said specific model is the same as that of the Microsoft Windows operating system, wherein the respective name of each web page is displayed and the names of the said web pages contain the web page connection sites; as such, after a web page name is selected, the computer system of the client enters the corresponding said connection site of the web page based on the said connection site. Since the specific screen model displayed on the computer system of the client was completed with web page editing software currently available on the market that has long been widely utilized on existent network systems and, furthermore, is not central to the patent application of the invention herein, it shall not be further elaborated.

In the preferred embodiment of the invention herein, the commands inputted by the client includes an identification number and a verification number; the said master web server has a authorization database and when the said master web server reads a said identification number and a said verification number, it searches for an individual

authorization level in the said authorization database that matches the said identification number and verification number and then collects web pages in the said master web server and slave web server the client is permitted to browse based on the said individual authorization level.

5           The said authorization database is comprised of an identification comparison table (as shown in FIG. 1), a group comparison table (as shown in FIG. 2), a group authorization comparison table (as shown in FIG. 3), and an individual authorization comparison table (as shown in FIG. 4), wherein the said identification comparison table consists of a plurality of identification numbers as well as verification numbers and user names that match the said identification numbers, the said group comparison table consists of the said identification numbers as well as group names and user names that match the said identification numbers, the said group authorization comparison table consists of the said group names as well as individual authorization names and user names that match the said group names, the said individual authorization comparison table consists of individual  
10 authorization names as well as a plurality of web page names and web page name connection sites that match the said individual authorization names.

Based on the identification number and verification number inputted by the client, the said master web server sequentially executes the steps below, referring to FIG. 5:

At step 501, the said identification number and verification number are first  
20 checked against the said identification comparison table to determine if they are correct; if the result is affirmative, step 503 is executed; and if the result is negative, step 502 is executed.

At step 502, the computer system of the client is requested to once again output an identification number and a verification number.

At step 503, based on the said identification number in the said group comparison table, the same identification number is searched for that matches the said identification number and is utilized to obtain the identification number under the group names and user names.

At step 504, based on the group names and the user names found after the search, the said group names are searched for in the said group authorization comparison table, with the user names that conform to the same group names and user names utilized to obtain the individual authorization name under the said group names and user names.

In step 505, utilizing the said individual authorization name, the same individual authorization name that matches the said individual authorization name is searched for in the said individual authorization comparison table, and then access to the commensurate web page names and web page connection sites is granted according to the matching said individual authorization name.

In step 506, the said web page names and web page connection sites are respectively displayed on the specific screen model on the computer system of the client.

While the invention has been described by means of specific embodiments, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope and spirit of the invention set forth in the claims.